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MARGER JOHNSON & MCCOLLOM PC
1030 SW MORRISON STREET
PORTLAND, OR 97205

EXAMINER

FAULK, DEVONA E

ART UNIT PAPER NUMBER

2644

DATE MAILED: 09/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/593,924

Applicant(s)

CHRISOP ET AL.

Examiner

Devona E. Faulk

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims **1-3,9-11** are rejected under 35 U.S.C. 102(e) as being anticipated by Mietling (U.S. Patent 6,385,322).

Regarding **claim 1**, Mietling discloses a speaker system operable to produce sound (public address system) comprising a speaker located in a speaker system (4) operable to generate sound in response to an audio signal (Figure 1; column 3, lines 32-35) A speaker is inherently present. ; a communication module (7, comprised of 8 and 9; column 4, lines 30-33; column 3, lines 20-30) located in the speaker system operable to transmit information to an amplifier located separate from the speaker system in response to a carrier signal, wherein the information includes speaker characteristics (Figure 1; column 3, lines 45-60; column 2, lines 20-40; column 4, line 60-column 5, line 21)

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Regarding **claims 2 and 3**, Mietling discloses that the communication module can transmit information from the speaker system to the amplifier across wires or using a wireless connection (column 3, lines 40-44).

Regarding **claim 9**, Mietling discloses a method for operating a speaker system in a sound system comprising generating a carrier signal from an amplifier (2) and the speaker system (4), wherein the speaker system is located separate from the amplifier (Figure 1); rectifying power from the carrier signal in a speaker system, wherein the power is used by a communication module (7, comprised of 8 and 9; column 4, lines 30-33; column 3, lines 20-30) located in the speaker system (column 5, lines 10-20); and transmitting information from the speaker system to the amplifier using the communication module in the speaker system for as long as the carrier signal is present (column 5, lines 1-20).

All elements of **claim 10** are comprehended by claim 9. There is inherently high impedance between the speaker and the communication module to protect the speaker.

All elements of **claim 11** are comprehended by claim 9 (Figure 1).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. **Claims 4,5 and 15-17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mietling (U.S. Patent 6,385,322) in view of Konno et al. (U.S. Patent 6,282,296).

Claim 4 claims the speaker system of claim 1, wherein the speaker system further comprises a high-pass filter and rectifier operable to derive output power from the carrier signal. As stated above apropos of claim 1, Mietling meets all elements of that claim. Therefore, Mietling meets all elements of claim 4 with the exception of the claimed matter. Konno teaches of an audio reproducing apparatus that comprises a rectifier (20) and high-pass filter (17). Thus it would have been obvious to one of ordinary skill in the art to use Konno's concept of a high-pass filter and rectifier in order to provide the capability of converting an AC output to a DC output.

Claim 5 claims the speaker system of claim 1, wherein the communication module has high impedance to avoid placing a load on the speaker that would degrade system performance. As stated above apropos of claim 1, Mietling meets all elements of that claim. Therefore, Mietling meets all elements of claim 5 with the exception of the claimed matter. Although Mietling does not specifically teach that the communication module has high impedance to avoid placing a load on the speaker, it is well known in the art that in speaker systems impedance plays an essential role in how well a speaker will perform. Thus it would have been obvious to one of ordinary skill to have the communication module have an impedance as claimed in order to ensure proper functionality of the speaker system.

Regarding **claim 15**, Mietling discloses a speaker system (public address system) comprising a speaker connector operable to connect the speaker system an amplifier located separate from the speaker system (Figure 1); speaker hardware operable to generate sound from

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an audio signal received from the speaker connectors (figure 1); and a communications module. Although, he teaches on the above named elements, Mietling fails to disclose a high-pass filter operable to pass a high frequency carrier signal received from the speaker connector; a rectifier operable to receive the high frequency carrier signal and convert it into a power signal; and a communications module operable to receive the power signal from the rectifier and transmit static characteristics of the speaker hardware to the amplifier using the speaker connector. However the concept of a high-pass filter, rectifier and communications module as claimed was well known in the art at the time of filing as taught by Konno. Konno discloses an audio reproducing apparatus comprising a high pass filter (17) as claimed, and a rectifier (20) as claimed, and a variable gain circuit (11) that reads on the communication module. A module is defined as a self-contained assembly of electronic components and circuitry. Thus it would have been obvious to one of ordinary skill to use Konno's concept of an audio reproducing apparatus comprising a high-pass filter, rectifier and that rectifier supplying power to a communication module in order to provide the capability to filter out a desired frequency and to convert AC power to DC power.

All elements of **claims 16 and 17** are comprehended by claim 15 (Mietling; column 3, lines 40-45). Therefore, claims 16 and 17 are rejected for reasons given above apropos of claim 15.

6. **Claims 6 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mietling (U.S. Patent 6,385,322) in view of Erickson (U.S. Patent 4,688,257).

Claim 6 claims the speaker system of claim 1, wherein the communication module communicates via one of the group comprising amplitude modulation, phase-shift keying, and

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two-tone modulation. As stated above apropos of claim 1, Mietling meets all elements of that claim. Therefore, Mietling meets all elements of claim 6 with the exception of the claimed matter. Mietling discloses that data can be transferred by wireless transmission or radio transmission (column 3, lines 40-45. Erickson discloses a wireless communication system that can use amplitude modulation to transmit data (column 3, lines 25-30). Thus it would have been obvious to one of ordinary skill in the art to use amplitude modulation as the communication method in order to use a proven communication method.

Claim 12 claims the method of claim 9, wherein the transmitting information from the speaker system to the amplifier is accomplished using one of the group comprising amplitude modulation, phase-shift keying and two-tone modulation. As stated above apropos of claim 9, Mietling meets all elements of that claim. Therefore, Mietling meets all elements of claim 12 with the exception of the claimed matter. Mietling discloses that data can be transferred by wireless transmission or radio transmission (column 3, lines 40-45. Erickson discloses a wireless communication system that can use amplitude modulation to transmit data (column 3, lines 25-30). Thus it would have been obvious to one of ordinary skill in the art to use amplitude modulation as the communication method in order to use a proven communication method.

7. **Claims 7 and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mietling (U.S. Patent 6,385,322) in view of Langston (U.S. Patent 6,272,351).

Claim 7 claims the speaker system of claim 1; wherein the information transmitted by the communication module from the speaker system to the amplifier is transmitted in a separate frequency band from the audio signal. As stated above apropos of claim 1, Mietling meets all elements of that claim. Therefore, Mietling meets all elements of claim 6 with the exception of

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the claimed matter. Mietling discloses that data can be transferred by wireless transmission or radio transmission (column 3, lines 40-45). Langston discloses transmitted data in a separate frequency band from another signal (column 7, line 62-column 8, line 4). Thus it would have been obvious to use Langston's concept of transmitting data in a separate frequency band in order to allocate a separate band so that signal modulation and demodulation is not required at each speaker.

Claim 13 claims the method of claim 9, wherein the information is transmitted in a frequency band separate from a frequency band used by an audio signal. As stated above apropos of claim 1, Mietling meets all elements of that claim. Therefore, Mietling meets all elements of claim 6 with the exception of the claimed matter. Mietling discloses that data can be transferred by wireless transmission or radio transmission (column 3, lines 40-45). Langston discloses transmitted data in a separate frequency band from another signal (column 7, line 62-column 8, line 4). Thus it would have been obvious to use Langston's concept of transmitting data in a separate frequency band in order to allocate a separate band so that signal modulation and demodulation is not required at each speaker.

8. **Claims 8 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mietling (U.S. Patent 6,385,322) in view of Long et al. (U.S. Patent 5,640,385).

Claim 8 claims the speaker system of claim 1, wherein the information is transmitted by the communication module from the speaker system to the amplifier is transmitted in a frequency band that overlaps the audio signal. As stated above apropos of claim 1, Mietling meets all elements of that claim. Therefore, Mietling meets all elements of claim 6 with the exception of the claimed matter. Mietling discloses that data can be transferred by wireless transmission or

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radio transmission (column 3, lines 40-45). Long discloses transmitted information in a frequency band that overlaps an audio signal (claim 1). Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to use Long's concept of transmitting as claimed in order to permit transmission to other wireless units.

Claim 14 claims the method of claim 9, wherein the information is transmitted by the in a frequency band that overlaps the frequency band used by an audio signal. As stated above apropos of claim 1, Mietling meets all elements of that claim. Therefore, Mietling meets all elements of claim 6 with the exception of the claimed matter. Mietling discloses that data can be transferred by wireless transmission or radio transmission (column 3, lines 40-45). Long discloses transmitted information in a frequency band that overlaps an audio signal (claim 1). Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to use Long's concept of transmitting as claimed in order to permit transmission to other wireless units.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

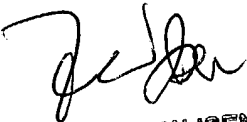
U.S. Patent 6,766,025 to Levy et al. discloses an intelligent speaker training using microphone feedback and pre-loaded templates.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devona E. Faulk whose telephone number is 703-305-4359. The examiner can normally be reached on 8 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on 703-305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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FORESTER W. ISEN
SUPERVISORY PATENT EXAMINER